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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/764,260   | 01/22/2004  | Derek A. Debe        | 54318.8009.US01     | 6173             |
| 34055  | 7590        | 02/10/2006           | EXAMINER            |                  |
| PERKINS COIE LLP<br>POST OFFICE BOX 1208<br>SEATTLE, WA 98111-1208 |             |                      | BORIN, MICHAEL L    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1631                |                  |
| DATE MAILED: 02/10/2006  |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/764,260

Applicant(s)

DEBE ET AL

Examiner

Michael Borin

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-109 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-109 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***DETAILED ACTION***

Claims 1-109 are currently pending.

It is noted that claim 109 refers to "method" of claim 101. Claim 101 does not recite a method. Claim 109 is tentatively placed in the same group with claim 101.

***Restriction Requirement***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-4, drawn to method for determining residue conservation score, classified in class 702, subclass19.
- II. Claims 5,6, drawn to method for comparing void on the surface of a reference protein with water, classified in class 702, subclass19.
- III. Claims 7,8, drawn to method for determining three dimensional Delaunay tessilation of reference residues of a reference structure , classified in class 702, subclass19.
- IV. Claims 9,10, drawn to method for determining residue conservation scores and surface orientation scores for residues on the surface of a reference protein, classified in class 702, subclass19.
- V. Claims 11,12, drawn to method for determining residue conservation scores and surface orientation scores for residues on the surface of a query protein, classified in class 702, subclass19.
- VI. Claims 13-20, 101, drawn to method for determining residue conservation scores and surface orientation scores for a plurality of the solvent

accessible residues on the surface of a reference protein, classified in class 702, subclass19.

- VII. Claims 21-24, drawn to method for determining residue conservation scores for a plurality of residues on the surface of a reference protein, classified in class 702, subclass19.
- VIII. Claims 25-30, drawn to method for determining residue conservation scores for a plurality of residues on the surface of a reference protein , classified in class 702, subclass19.
- IX. Claims 31,32, drawn to method for identifying a putative functional cluster, classified in class 702, subclass19.
- X. Claims 33-36, 102,drawn to method for identifying a putative functional cluster, classified in class 702, subclass19.
- XI. Claims 37,38 drawn to method for determining putative functional cluster, classified in class 702, subclass19.
- XII. Claims 39-40, drawn to method for determining putative functional cluster, classified in class 702, subclass19.
- XIII. Claims 41-49, 103,drawn to method for identifying at least one cluster of functional residues on the surface of a query protein, classified in class 702, subclass19.
- XIV. Claims 50-59, 104,drawn to method for identifying at least one cluster of functional residues on the surface of a query protein, classified in class 702, subclass19.

- XV. Claims 60-69, 105, drawn to method for determining a continuous SVM score for a putative functional cluster, classified in class 702, subclass 19.
- XVII. Claims 70-79, 106, drawn to method for determining a continuous SVM score for a putative functional cluster, classified in class 702, subclass 19.
- XVIII. Claims 80-85, 94, 107, drawn to method for determining a continuous SVM score classified in class 702, subclass 19.
- XIX. Claims 86-93, 108, drawn to method for determining the probability that a putative functional cluster is functional, classified in class 702, subclass 19.
- XX. Claims 95-100, drawn to method for determining the probability that a putative functional cluster is functional, classified in class 702, subclass 19.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-XX are directed to related methods. The related inventions are distinct if the inventions as claimed do not overlap in scope; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, inventions of Groups I-XX are directed to methods which either have different modes of operation and different steps (e.g., methods of Groups X, XI), and/or different functions and/or different effects (e.g., methods of Groups I and XII). The methods would require non coextensive patent and literature searches and have separate enablement requirements.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Borin whose telephone number is (571) 272-0713. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Borin, Ph.D.  
Primary Examiner  
Art Unit 1631